

Monthly Report for October 2017

Submitted November 3, 2017

Updates/ Meetings

Advisory Board Meetings

Both the Research and Policy Advisory Board and the Data Governance Advisory Board October meetings were spent reviewing the draft of the External Researcher Protocol. The feedback from the advisory boards has been very beneficial and incorporated into a revised draft that will be provided to the Governing Board for the December meeting.

Meeting with DLLR Staff

MLDS staff met with Brandon Butler, Deputy Assistant Secretary, Lloyd Day, Director of Office of Workforce Development and Adult Learning (DWDAL), and Erin Roth, Director of Policy, DWDAL. DLLR provided an update on their implementation of RAPIDS (Registered Apprenticeship Partners Information Data System), which is the system provided by the federal government for states to manage and update information about apprenticeship programs. Once RAPIDS is operational, DLLR will file a request to the U.S. Department of Labor to authorize DLLR to provide Maryland apprenticeship data to the MLDS Center. The meeting also discussed opportunities to work collaboratively by providing information required for reporting or to provide insight into program outcomes.

SLDS Topical Webinar

The State Support Team for the Statewide Longitudinal Data Systems (SLDS) Grant Program under the National Center for Education Statistics (U.S. Department of Education) held two webinars in October. In *Strategies for Building Capacity and Evaluating Stakeholder Data Use*, presenters from Minnesota's Department of Education, Hawaii's Data Governance and Analysis Branch, and Maryland's MLDS Center (Ross Goldstein) discussed their state longitudinal data systems, including strategies for building capacity among stakeholders, ways to measure and evaluate the success of stakeholder engagement, and lessons learned and next steps for continuing to engage stakeholders.

In *Fostering a Culture of Data Use*, Minnesota, Washington, and Maryland (Laia Tideman) discussed issues of sustaining and enhancing existing education data systems and expanding data sharing and data partners, some of the vital components that help establish the culture, and what they see as next steps for them as they continue to foster a culture of data sharing & data use.

Ohio Longitudinal Data Archive

On October 20th, Center staff participated in a conference call with the Ohio Longitudinal Data Archive. Lisa Neilson, Director of OLDA and her staff discussed their SLDS and their experiences in implementing external research procedures. Ohio's staff shared their development and implementation experience, and lessons learned. They also provided all the documents developed for their process.

MdAIR Fall Conference Presentation

The MLDS Center, in partnership with the Maryland Center for Computing Education, presented a session “Decoding Computer Science Pathways” at the MdAIR Fall Conference in October. The presentation reviewed the current state of computer science (CS) course-taking trends in Maryland. The presenters discussed decoding CS course patterns from both the high school and postsecondary perspectives, and the relationship between high school mathematics courses and computer science involvement in postsecondary education. The presentation built on the extensive data provided to the MCCE. The Center in collaboration with MCCE, plans to expand the presentation into dashboards and other output.

Teacher Evaluation Workgroup

The MLDS Center received a request for the Department of Legislative Services to provide analysis on teacher preparation programs and the impact of the programs on teacher success. The Center convened a workgroup to discuss the request and receive input on how to design a research analysis on the question. The group included representatives from the University System of Maryland, Towson University College of Education, MICUA, MSDE, and MHEC. The meetings provided good information, which has allowed staff to begin to develop a research plan.

Reporting/Data Requests

Dual Enrollment Dashboards

Two sets of dual enrollment dashboards were launched this month - one set of dashboards provides information on [statewide trends](#) and the other on [county trends](#) in dual enrollment from 2010-2011 to 2015-2016. The statewide dashboard series is comprised of three dashboards on overall enrollment trends as well as enrollment for specific population groups. The county series is comprised of four dashboards that provide enrollment trends for each school district as well as trends for several different population groups. Additionally, the county dashboard series allows data for each school district to be compared to statewide trends.

Maryland Public School Student Pathways Results

The Maryland Public School Student Pathways data request for the Department of Legislative Services was completed. The Pathways used System data to calculate the percentage of 12th grade high school exiters in the 2008 cohort that graduated with a high school diploma, entered college, and graduated from college. The information was well received and will be posted on the website next week.

More Jobs for Marylanders Act

The *More Jobs for Marylanders Act* (2017 Md. Law, Chap. 149/SB317) requires the Center and the Governor’s Workforce Development Board (GWDB) to, “develop annual income earnings goals for high school graduates who have not earned at least a 2-year college degree by age 25.” Center staff met with the GWDB staff to coordinate the development of these goals. The Center agreed to provide data on three high school graduate cohorts (2008, 2009, 2010) that have reached age 25. Wage data were used to project median quarterly wages at age 18, 21 and 25 for individuals with a postsecondary certificate, some college, and no college enrollment that had wage data for at least 5 years of the 7 year period. In addition,

the Center compared the wage data at age 25 to cost of living data from the [MIT Living Wage Calculator](#) and median earnings for workers from the American Community Survey. The Center's analysis was completed on all three educational attainment groups at the state-level as well as at the county level and was provided to GWDB for their review and development of the wage goal.

Center Output

The Center began development on an Output matrix. The purpose of the Output matrix is to 1) identify the scope of and audience for each Center product, 2) document the review process for each product, and 3) determine the format and production vehicle for each product. A first draft of the matrix was completed. A second draft should be completed in November.

Dual Enrollment Report

A first draft of the the Center's Annual Dual Enrollment Report was completed. The College and Career Readiness and College Completion Act of 2013 ("CCR-CCA") established a statutory requirement that the Center provide an annual report to the Governor and General Assembly on the number of students who are dually enrolled in high schools and in colleges or universities, as well as information about the courses taken by dually enrolled students. The draft will be presented to the Research and Policy Advisory Board in November with the final report presented at the December Governing Board meeting.

2017 Annual Report

A first draft of the Center's Annual report was also completed. The Annual Report is a requirement under Education Article, §24-705, Annotated Code of Maryland and must provide: 1) information on the implementation of the system and activities of the Center; 2) a list of all studies performed by the Center during the year; 3) a list of all currently warehoused data that are determined to be no longer necessary; 4) proposed or planned expansion of data maintained in the database; and 5) any other recommendation made by the Governing Board. The draft will be presented to the Research and Policy Advisory Board in November with the final report presented at the December Governing Board meeting.

Research Branch

Research Series

Dr. Henneberger and Heath Witzen presented the first research series of the Fall semester on Thursday October, 5, 2017. The presentation focused on using a propensity score matching approach to examine the effect of dual enrollment program participation on college enrollment outcomes over time, college degree attainment, and earnings six years after high school. Results indicated that dual enrollment program participation had a significant positive causal effect on enrollment in a 2-year college, but not on enrollment in a 4-year college one year after high school. In years 2-4, dual enrollment program participation had a significant positive causal effect on enrollment in both a 2-year and 4-year college, suggesting that students who participate in dual enrollment are beginning their college careers at 2-year institutions and moving to 4-year institutions. Dual enrollment program participation also had a significant positive effect on degree attainment and wages six years after high school.

The planned November research series will be conducted by Dr. David Blazar, Assistant Professor of Education Policy and Economics at the University of Maryland College Park. Dr. Blazar will present a

talk entitled “Validating Teacher Effects on Students’ Attitudes and Behaviors: Evidence from Random Assignment of Teachers to Students.”

Additional Analyses

A new analytic data file has been created for the brain drain project examining the workforce outcomes of Maryland high school students who attend college in Maryland and out-of-state (do out-of-state college attendees come back to Maryland to work?). The new data file was created to add workforce data that extends past the prior 5 year limitation of linking the data. Through the process of creating a new analytic data file, the research team has defined best practices for creating analytic datasets moving forward. Data analyses will now be implemented in the new analytic data file.

A draft research plan for the research request from Senator Ferguson on student-level and school-level socioeconomic status (SES) was conceptualized and presented at the research team meeting. The research plan was updated, and the research plan has been sent to the Center subject matter experts for review. Work to create an analytic data file in accordance with the new protocol has begun.

Synthetic Data Project (SDP)

October was a very productive month for the SDP Team. First, the are excited to have been busy with initial synthesization of the pilot gold standard data set of postsecondary to workforce data. That was an important milestone as part of our overall preparation for the critically important first meeting of the Expert Advisory Panel of international top theoretical and experienced methodologists in the arena of the creation and use of synthetic data. That meeting, which occurred October 26th and 27th, was a success and exceeded the team’s expectations. In particular Angela Henneberger's excellent overview of the Center and description of the data and initial gold standard data set; Daniel Bonnery's thought-provoking presentation about the work on the project to this point; Daniel and Partha Lahiri's ongoing synthesization questions for the experts (the central point of the meeting); and exceptional logistical planning by our doctoral students--Tessa, James, & Yi—were central in organizing and running a very smooth meeting. The experts gave the team a wide range of very helpful suggestions, insights, and detailed descriptions of how they had handled similar issues. They also provided support and encouragement for the project and its important goals. The team will spend the next month analyzing the valuable input and work on how to use that to inform the project going forward.

System Management

Tasks

The System Management team worked on the following tasks this month:

1. Virtual Private Network (VPN) - Implementation of DoIT’s Pulse Secure VPN Solution, which provides Remote Access as a Service (RAaaS), has been completed. Staff and end users have some concerns about the user interface and performance of new VPN. Tejal Cherry is working with DoIT to see if those issues can be resolved.
2. System Patches - The Center has completed implementing all remediation patches with coordination from DoIT. The Center is now on DoIT’s regular patching cycle for all servers.

3. Encryption of desktops - DoIT encrypted the MLDSC desktops similar to what was done for laptops. Unfortunately, the Center's desktops "Dell Optiplex 920" are having multiple issues with this encryption. Staff is exploring other options for desktop encryption with DoIT.
4. Master File Transfer Software (MFT) - After creating a set of business needs, staff conducted a detailed review of several MFT products. The Center will be procuring "GoAnywhere" product for MFT solution. The cost of this MFT is a little higher than the DoIT solution (MoveIT), the GoAnywhere solution has better security features, especially for encryption of files at rest and in flight.
5. McAfee AntiVirus Scan - All servers (virtual) are now on the latest McAfee virus scan. Staff worked with DoIT to implement this enterprise project.
6. ERWIN - Database modelling tool was procured and implemented.
7. Intrusion Detection System - Staff worked with CyberESI to refine the weekly report and implement additional monitoring rules. IDS is monitoring all traffic that accesses the secured database with PII information.

Data

- Completed loading MHEC Financial Aid 2016 data collection
- Provisioned fact and lookup tables for MHEC External Credit System data collection and also completed loading External Credit records for Academic year 2014 to 2016
- Completed the cross walk between Data Inventory and Data Dictionary
- Continued to work on 2017 Quarter 2 wage data

Website

Top 10 dashboards hits:

Dashboard Name	Number of Hits
1. High School Graduates - Initial Postsecondary Enrollments	18
3. High School Graduates Initial Postsecondary Enrollments By County	13
2. High School Graduates - Initial Postsecondary Enrollments By Year	12
18. Students Who Initially Enrolled a Maryland Community College - Outcomes	10
27. Median 4-Quarter Wages by High School Outcomes	10
24. High School Outcomes and Postsecondary Enrollment Status - Annualized Wages OverTime	9

11. High School Graduates with Initial Postsecondary Enrollments	8
5. High School Graduates - Initial Postsecondary Enrollments By Race Ethnicity	8
22. High School Outcomes and Postsecondary Enrollment Status - Overview	6
4. High School Graduates - Initial Postsecondary Enrollments By Gender	6